

Amendment to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

1. (Withdrawn) A system of pumps, lines, and valves that circulate fluid outside a patient's body during a surgery, comprising:

a pump which draws fluid from the patient using suction;

a valve disposed in a first line connecting the pump and the patient, the first line having a first end being disposed inside the patient and a second end connected to the pump;

wherein when the first line experiences a predetermined amount of negative pressure, the valve allows fluid to flow from a source other than the patient toward the pump without introducing air into the first line.

2. (Withdrawn) The system of Claim 1, wherein the valve allows fluid to flow from a source other than the patient toward the pump via a second line connecting to the first line at the valve.

3. (Withdrawn) The system of Claim 1, wherein the valve presents a visual indicator when it allows fluid to flow from a source other than the patient into the first line.

4. (Withdrawn) The system of Claim 1, wherein the valve relieves positive pressure in the first line.

5. (Withdrawn) The system of Claim 1, wherein the valve prevents flow from the pump to the patient.

6. (Withdrawn) The system of Claim 1, wherein the predetermined level is adjustable.

7. (Currently Amended) A valve for controlling pressure of fluid in a line of an extracorporeal circuit during heart surgery, comprising:

a first inlet having an axis parallel to the direction of fluid flow through the first inlet;

a second inlet having an axis parallel to the direction of fluid flow through the second inlet;

an outlet having an axis parallel to the direction of fluid flow through the outlet;

wherein the first inlet includes a one-way valve which allows fluid suctioned from a patient's body to pass into the valve toward the outlet, but does not allow fluid flow in the reverse direction;

wherein the second inlet includes a two-way valve which allows fluid to pass from a source into the valve toward the outlet ~~in the event that~~ when negative pressure in the line reaches a predetermined level of negative pressure; and

wherein the axis of the first inlet and the axis of the second inlet have an angle between them less than ninety degrees.

8. (Currently Amended) The valve of Claim 7, wherein the two-way valve in the second inlet relieves negative pressure in the line without introducing air into the line.

9. (Previously Presented) The valve of Claim 7, wherein the valve further comprises a visual indicator of fluid flow within the valve.

10. (Currently Amended) The valve of Claim 7, wherein the two-way valve in the second inlet allows fluid to pass from the line to the source ~~in the event that~~ when positive pressure in the line reaches a predetermined level of positive pressure.

11. (Currently Amended) The valve of Claim 10, wherein the two-way valve may be adjusted to modify the predetermined level of positive pressure ~~is adjustable~~.

12. (Withdrawn) An extracorporeal circuit, comprising:
 - a pump in fluid communication with a first line, the first line being positioned to draw fluid from a patient;
 - a valve system in the first line between the pump and the patient, the valve system having a first valve which prevents flow of fluid from the pump toward the patient and a second valve which allows fluid to pass through the second valve toward the pump when negative pressure in the first line exceeds a predetermined amount;
 - wherein the valve system provides for relief of excess positive pressure in the first line; and
 - wherein the valve system relieves negative pressure by allowing fluid flow from the first source to the first line.
13. (Withdrawn) The circuit of Claim 12, wherein the valve system relieves negative pressure in the first line without introducing air into the circuit.
14. (Withdrawn) The circuit of Claim 12, wherein the valve system presents a visual indicator when it allows fluid to flow from a source other than the patient into the first line.
15. (Withdrawn) The circuit of Claim 12, wherein the valve system relieves positive pressure by allowing fluid flow from the first line toward a first source.
16. (Withdrawn) The circuit of Claim 12, wherein the predetermined amount is adjustable.
17. (Withdrawn) The circuit of Claim 12, wherein no valve in the circuit introduces air into the circuit.

18. (Previously Presented) The valve of Claim 9, wherein the visual indicator is a transparent window wherein fluid flow within the valve can be observed.
19. (Currently Amended) The valve of claim 9, wherein the visual indicator is a mechanical device ~~wherein the mechanical device~~ which activates to indicate ~~indicates a direction of the fluid flow of fluid~~ within the valve.
20. (Previously Presented) The valve of claim 9 further comprises an electronic detector for measuring fluid flow within the valve; and wherein the visual indicator is connected to the electronic detector.
21. (Previously Presented) The valve of claim 20 wherein the visual indicator is an electronic display.
22. (Previously Presented) The valve of claim 7 wherein the valve further comprises an expelling outlet wherein the expelling outlet permits fluid flow to open air in the event that positive pressure in the line reaches a predetermined level of positive pressure.
23. (Currently Amended) The valve of claim 7 wherein the two-way valve may be adjusted to modify the predetermined level of negative pressure ~~is adjustable~~.
24. (Previously Presented) The valve of claim 7 wherein the source is a venous reservoir.
25. (Previously Presented) The valve of claim 7 wherein the source is a reservoir that is open to the atmosphere.
26. (Currently Amended) The valve of claim 7 wherein the ~~fluid flow through~~ one-way valve ~~in the first inlet is regulated by~~ a duck-billed valve.

27. (Withdrawn) The method of controlling pressure of a fluid in a valve in a line of an extracorporeal circuit during heart surgery, comprising the steps of:

permitting fluid flow from a patient's body into a first inlet of the valve;

restricting fluid flow such that the fluid may not flow in a reverse direction out of the first inlet of the valve;

allowing fluid flow from a source into the valve through a second inlet if a negative pressure in the line reaches a predetermined level of negative pressure; and

providing unrestricted fluid flow through an outlet of the valve.

28. (Withdrawn) The method of claim 27 further comprising the step of indicating a direction of fluid flow within the valve.

29. (Withdrawn) The method of claim 27 further comprising the step of adjusting the predetermined level of negative pressure.

30. (Withdrawn) The method of claim 27 further comprising the step of allowing fluid flow from the valve into a source through the second inlet if a positive pressure in the line reaches a predetermined level of positive pressure.

31. (Withdrawn) The method of claim 30 further comprising the step of adjusting the predetermined level of positive pressure.